

CLAIMS

1. An embroidery data creation device for creating embroidery needle fall point data, characterized in comprising:

 drawing input means operated manually by a user for outputting at least a position thereof;

 a needle fall point processing unit for generating needle fall points along a trace constituted by a plurality of said positions input from said drawing input means, in parallel with the input of said trace and such that at least one of an embroidery stitch width, an embroidery stitch density, and an embroidery stitch angle in relation to said trace satisfies a predetermined condition; and

 display means for displaying, in parallel with the input of said trace, an image of a stitch connecting said needle fall points.

2. The embroidery data creation device according to claim 1, characterized in that said needle fall point processing unit determines an intermediate point by interpolating a section between said plurality of trace positions in accordance with said stitch density, and determines said needle fall points on the basis of said intermediate point such that said stitch is set at a predetermined angle to said trace and a predetermined width.

3. The embroidery data creation device according to claim 1, characterized in that at least one type of data from a pressure applied by said user to said drawing input means, a movement velocity of said drawing input means, and an inclination of said drawing input means is determined from said drawing input means, and

 at least one of said stitch width, said stitch density, and said stitch angle is

corrected in accordance with said data.

4. The embroidery data creation device according to claim 1, characterized in further comprising:

means for detecting a curved portion of said trace; and

means for inputting and storing a correction condition at said curved portion relating to at least one of said stitch width, said stitch density, and said stitch angle, and characterized in that at least one of said stitch width, said stitch density, and said stitch angle is corrected at said curved portion in accordance with said correction condition.

5. The embroidery data creation device according to claim 1, characterized in further comprising means for storing an input order of said trace such that in an area where a plurality of traces overlap, said needle fall points of a trace having a predetermined input order are deleted.

6. The embroidery data creation device according to claim 1, characterized in further comprising simulation means for simulating said determined stitch by applying at least a brightness level to said determined stitch.

7. The embroidery data creation device according to claim 6, characterized in that said simulation means comprises means for storing a light source direction, and applies said brightness level to said stitch such that a side near to said stored light source direction is bright, a side far from said stored light source direction is dark, and said brightness level varies in monotone fashion along said stitch.

8. An embroidery data creation method for creating embroidery needle fall point data, characterized in comprising the steps of:

generating needle fall points along a trace constituted by a plurality of positions input from drawing input means operated manually by a user, in parallel with the input of said trace and such that at least one of an embroidery stitch width, an embroidery stitch density, and an embroidery stitch angle in relation to said trace satisfies a predetermined condition; and

displaying an image of a stitch connecting said needle fall points in parallel with the input of said trace by said drawing input means.

9. An embroidery data creation program characterized in comprising:

a needle fall point generation command for generating needle fall points along a trace constituted by a plurality of positions input from drawing input means operated manually by a user, in parallel with the input of said trace and such that at least one of an embroidery stitch width, an embroidery stitch density, and an embroidery stitch angle in relation to said trace satisfies a predetermined condition; and

a display command for displaying an image of a stitch connecting said needle fall points in parallel with the input of said trace by said drawing input means.